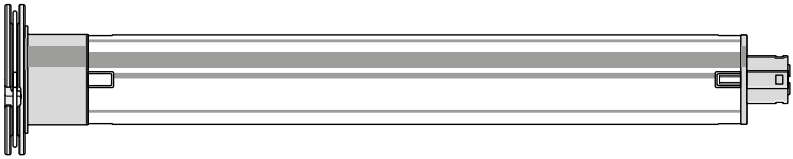
Tubular motor:

GEIGER-SOLIDline

Motor control:

GEIGER-SoftPlusWireless-Qi (GU45..F02)

for cassette awnings



EN **Original assembly and operating instructions** **EN**

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1. General information

Dear customer,

By purchasing a GEIGER motor you have decided on a quality product from GEIGER.

Thank you very much for your decision and the confidence placed in us.

Before you put this drive into operation please observe the following safety instructions. It serves for the prevention of danger and for the avoidance of personal injury and damage to property.

The installation and operating instructions contain important information for the installer, the specialist electrician and the user. Please pass on these instructions if you transfer the product. These instructions should be kept by the user.

2. Guarantee

In the case of incorrect installation contrary to the installation and operating instructions and/ or constructional modification, the legal and contractual guarantee for property damage and product liability lapses.

3. Intended use

The motors of the model range **SOLIDline (GU45..F02)** with the **SoftPlusWireless-Qi** control are designed exclusively for the operation of cassette awnings.

The motors may not be used for the operation of roller grilles, garage doors, furniture and lifting tools.

GU 45 xx x

- **x** – Motor control
- **xx** – Torque in Nm
- **45** – Motor diameter
- **GU** – GEIGER universal drive

4. Safety instructions

ATTENTION: Important safety instructions. For personal safety, it is important to follow these instructions. Please keep these instructions for future reference.

- **Do not allow children to play with stationary controls. Keep remote controls away from children.**
- **The installation is to be checked regularly for defective balance, signs of wear or damaged cables and springs, if relevant.**
- **Do observe the moving sun protection system and keep persons away until it has closed completely.**
- **When operating the manual release with the sun protection system open, please be cautious as it can fall down quickly if springs or tapes wear off or are broken.**
- **Do not operate the device if operations such as, for example, window cleaning are to be carried out in the vicinity.**
- **Disconnect the automatic controlled device from the mains power supply if operations such as, for example, window cleaning are being carried out in the vicinity.**
- **During operation observe the danger zone.**
- **Do not use the installation if people or objects are in the danger zone.**
- **Urgently shut down damaged installations until repair.**
- **Unconditionally shut down the unit during maintenance and cleaning operations.**
- **Pinching and shearing points are to be avoided and must be secured.**
- **This appliance can be used by children aged 8 and above and persons whose physical, sensorial or mental capacities are impaired, or who have no experience or know-how if they have been supervised or been given instructions on the use of the appliance and if they understand the possible resulting dangers. Children are not permitted to play with the device. Cleaning and maintenance should not be carried out by children.**
- **The rated sound pressure level is less than 70 dB(A).**
- **Disconnect the device from the mains power supply for maintenance and replacement of parts.**
  If the motor is disconnected via a plug connection the operator must be able to control - from any place to which it has access – that the plug is removed.
  If this is not possible - due to design or installation - the disconnection from the power supply must be ensured via locking in the disconnected position (e.g. isolator).
- **The motor tube can get very hot during prolonged use.**
  When working on the unit, do not touch the tube before it has cooled down.

5. Safety instructions for assembly

ATTENTION: Important safety instructions. Follow all installation instructions, as incorrect installation can lead to serious injuries.

- **When mounting the motor without any mechanical protection of the driven parts and of the tube which may become hot, the motor must be installed at a height of at least 2.5 m above the ground or of another level which provides access to the drive.**
- **Before the motor is installed, all cables which are not needed are to be removed and all equipment which is not needed for power-operated actuation is to be put out of operation.**
- **The actuating element of a manual release must be mounted at a height of less than 1.8 m.**
- **If the motor is controlled by a switch or pushbutton, the switch or pushbutton must be mounted within eyeshot of the motor. The switch or pushbutton must not be located in the vicinity of moving parts. The height of installation must be at least 1.5 m above the floor.**
- **Permanently installed control devices must be attached visibly.**
- **In case of devices extending horizontally, a horizontal distance of at least 0.4 m must be respected between the fully extended part and any other fixed element.**
- **The rated speed and the rated torque of the motor must be compatible with the device.**
- **The mounting accessories that are used must be designed in accordance with the selected rated torque.**
- **Good technical knowledge and good mechanical skills are necessary for the motor installation. Incorrect installation can lead to serious injury.**
  Electrical work must be carried out by a qualified electrician in accordance with the regulations in force locally.
- **Only use connecting cables that are suitable with the environmental conditions and which meet the construction requirements. (see accessories catalogue)**
- **If the device is not equipped with a connecting cable and a plug, or other means for disconnecting from the mains with a contact opening on each pole according to the conditions of the overvoltage category III for full disconnection, a disconnecting device of this type must be incorporated into the permanently installed electrical installation according to the wiring rules.**
- **Do not mount the connecting cables near hot surfaces.**
- **A plug for the disconnection of the motor from the power supply must be accessible after installation.**
- **Damaged connecting cables must be replaced by GEIGER connecting cables of the same type.**
- **The device must be mounted as described in the installation instructions. Fixations shall not be made with adhesives since they are regarded as unreliable.**

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6. Installation instructions

Before fixing, the strength of the masonry or of the subsurface is to be checked.

Prior to installation please check to ensure there is no visible damage to the motor like cracks or open cables.

Caution: If the tube is screwed/riveted to the drive, the measure must be taken from the tube end to the center of the drive and marked on the tube.

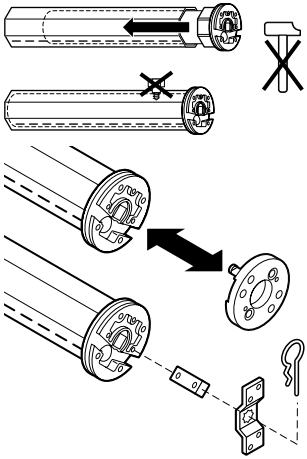
Installation into awnings:

Insert motor with a suitable adapter and drive into the shaft up to the stop of the shaft adapter.

Fix the motor support on the awning. Fix the motor together with the shaft on the motor support. The bearer locks into place.

Depending on the selected motor head, different fixation systems can be used:

- Place the motor with square insert in the star-shaped bearer and lock with pin
- Place the motor into the existing engine bearer and lock
- Place the motor in a compatible engine bearer with clip system and lock with spring or rotating lever



The GEIGER SOLIDline motor is suitable for shaft diameters from 50 mm!

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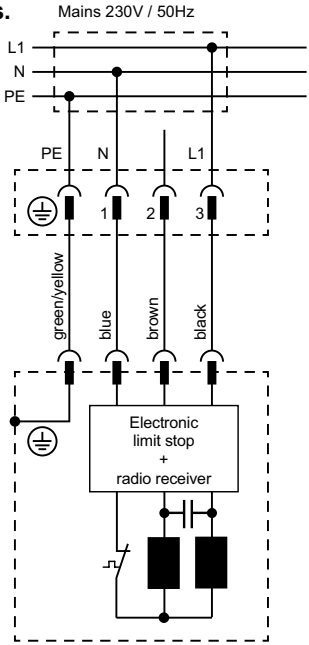
7. Information for the specialist electrician

Caution: Important installation instructions. Please follow all installation instructions since incorrect installation can lead to the destruction of the motor and the switching unit.



The operations with the service clamps must only be carried out by a skilled electrician.

Motors with electronic limit stops can be connected in parallel.

In this case the maximum load of the switching unit must not be exceeded.

PVC cables are not suitable for equipment used outdoors or exposed to prolonged high levels of UV radiation.

These cables should not be used if they are likely to touch metal parts that can heat up to temperatures exceeding 70°C.

Connecting cables with plug connectors of the Hirschmann Company are tested and approved with couplings of the Hirschmann Company.

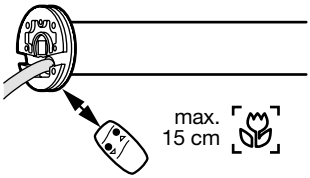
8. Bringing into service

Definition of “near range“:

Distance of the handheld transmitter to the motor control: max. 15 cm

or

hold at the handheld transmitter directly on to the motor connecting cable.The motor connecting cable thus serves up to a length of 3 meters as an “antenna“.

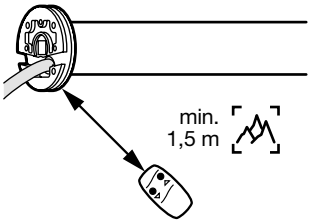


Definition of “far range“:

Distance of the handheld transmitter to the motor control: min.1,5 meter

and

Distance of the handheld transmitter to the motor connecting cable min.0,5 meter



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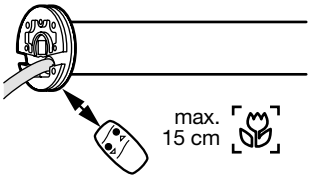
The distance between the upper and lower end stops must be about 25 cm which corresponds to one tube rotation at least.

It is required for the upper end position to act as a stopper for torque-deactivation (e.g. casing profile).

The correct key allocation for UP and DOWN happens automatically after programming of the end position is complete.

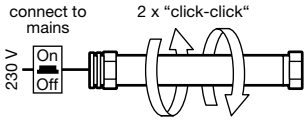
Programming the handheld transmitter

Hold the handheld transmitter at close range and hold key UP or DOWN pressed.



Switch on the power supply. The motor confirms with 2 x “click-click” after 2 seconds.

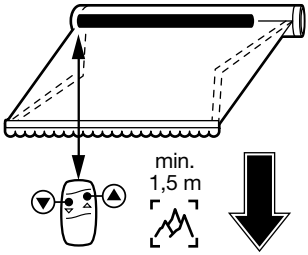
Release key.



The lower end position must be adjusted first.

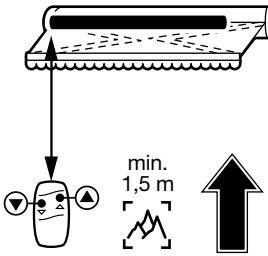
Adjusting the lower end position

Move the awning to the lower end position.
The motor always starts with a jerk when the learning mode is activated. Any adjustment can be realized here.



Adjusting the upper end position

Move the awning to the upper end position without interruptions until the motor automatically shuts down (torque detection). The programming procedure is then completed and the motor returns to normal operating mode.



Finally, conduct at least one trial run, so that the motor electronics can automatically detect the threshold of the torque disconnection.

If the minimum distance of 25 cm between the upper and lower end stops has not been respected, the learning mode is still activated and the motor starts with a jerk.

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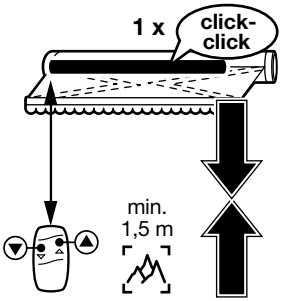
9. Programming the intermediate position

Travel from any desired position to the desired end position, stop with the stop key or the opposite key and hold key pressed for approx. 3 sec. until the motor responds (1 x “click-click“). Then release the key.

The intermediate position is now stored.

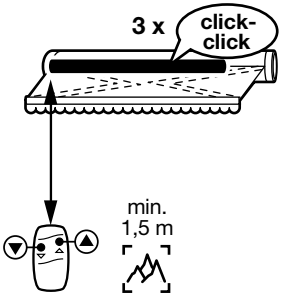


Changing the intermediate position

See “programming the intermediate position“, but in a new desired position.

Deleting the intermediate position

Stop the awning from UP or DOWN movement and keep key pressed for about 5 sec. – the motor responds with 1 x “click-click” after 3 sec. - until the motor confirms the deletion (3 x “click-click“).



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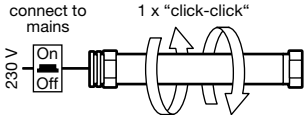
10. Learning / deleting the radio codes

Activate the learning mode (only necessary for further handheld transmitters):

Connect the motor to the power supply.

Switch on the mains.

The motor makes a short back and forth movement (1 x “click-click“). In the near range press UP or DOWN key and keep it pressed for about 3 seconds until the motor confirms (1 x “click–click“).

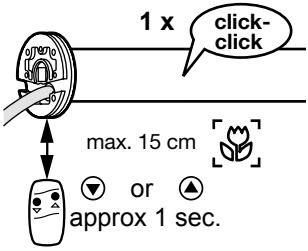


After each interruption of the voltage supply, the learning mode **can** be activated for 30 min.

The learning mode is necessary in order to transmit radio codes or in order to be able to adjust the end positions again.

The learning mode must be activated first in order to learn / delete the radio codes.

If no action takes place within 60 seconds, the learning mode is deactivated. The motor returns to normal operation (3 x “click-click“).

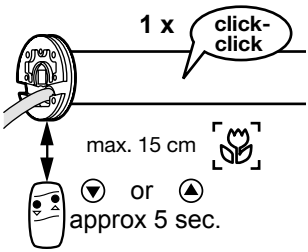


In the close range press UP or DOWN key for about 1 second. The motor confirms (1 x “click-click “).

The radio code is taught to the motor.

Deleting the radio codes

The learning mode must be activated first in order to learn / delete the radio codes.



At close range, press the UP or DOWN key for about 5 seconds. The motor reacts immediately (1 x “click-click”). Keep the key pressed about 5 sec. until the motor confirms the deleting of the radio codes with 1 x “click-click”.

Please note: You can only delete all radio codes and sensor radio codes together. It is not possible to delete individual radio codes.

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11. Changing the end positions

The distance between the upper and lower end stops must be about 25 cm which corresponds to one tube rotation at least.

It is required for the upper end position to act as a stopper for torque deactivation (e.g. casing profile).

The correct key allocation for UP and DOWN happens automatically after programming of the end position is complete.

Change the end positions

1. Switch power off and on again, then extend the awning and activate the learning mode.
2. For this purpose activate the UP or DOWN key of the remote control for about 3 seconds in the short range until the motor confirms. Then activate the UP or DOWN key for about 1 second in the long range until the motor confirms again.
   Note: The motor always starts with a jerk when the learning mode is activated.
3. Move the awning to the new lower end position. Any adjustment can be realized here.
4. Move the awning to the upper end position without interruptions until the motor automatically shuts down. (torque detection). The programming procedure is then completed and the motor returns to normal operating mode.

Finally, conduct at least one trial run, so that the motor electronics can automatically detect the threshold of the torque disconnection.

12. Deactivation of the close-range function

If two motors are installed so that both trigger in the close range, there is the option of deactivating the close-range function in one of the two motors.

The prerequisite is that the motors must be assigned to different key pairs.

To deactivate the close-range function, move the desired hanging to the upper end position, push the UP key and keep it pushed for about 5 seconds until the motor confirms (2 x “click-click“).

The motor must be briefly disconnected from the mains to activate the close-range function.

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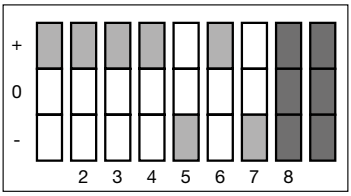
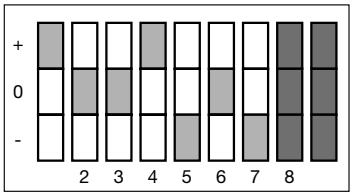
13. Function description of radio motor

In the delivery state, each GEIGER radio receiver and radio transmitter is equipped with the “GEIGER-Code“ + + + + - + - so that the motor can be operated immediately, in order, for example, to facilitate the installation of hangings on the winding shaft.

For security reasons, the „GEIGER-Code“ must be overwritten by an individual code! This takes place automatically in the teaching for the first time of an individual code (see chapter 9 learn/delete radio codes).



„GEIGER code“



individual code (example)

The DIP switches No. 8 and No. 9 have no function!

Please take the description and adjustments from the operating instructions of the appropriate hand-held/wall transmitter.

Radio codes

A maximum of three different functional codes can be taught. The motor can thus be a member in three groups that are independent of one another. Additionally, a further two radio sensor codes can be taught.

If three radio codes have already been taught and it is attempted to teach a fourth code, the radio code learnt as the third code is cancelled and replaced by the new code. If two radio sensor codes have already been taught and it is attempted to teach a third code, the radio sensor code learnt as the second code is cancelled and replaced by the new code.

Example:

Wireless receiver in the motor

Group 1 Code	Group 2 Code	Group 3 Code	Sensor 1 Code	Sensor 2 Code
+ o o + - o -	+ + + o o + +	+ - + + - + +	+ - + + - + +	+ + + - - + +

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For your documentation record any hand-held remote/sensor codes taught into the motor here:

Group 1	Group 2	Group 3	Sensor 1	Sensor 2

Caution: If radio receivers or motor connecting cables lie near to one another, unintentional codes can be transmitted to other radio receivers.

Recommendation:

When starting the motor for the first time, disconnect motors that are intended to be operated by another pair of keys, or by another code, from the mains.

14. Initiating End Positions

No intermediate position has been programmed in:

To initiate the end positions, a short press of the button in the corresponding direction of movement is enough.

To stop the movement, a short press of the button in the opposite direction is enough.

Should a sun-wind sensor be integrated into the system, in automatic mode (solar-on) the end positions are initiated.

An intermediate position is programmed in:

To initiate the end positions, the button corresponding to the correct direction of movement must be pressed for **at least 1.5 seconds**.

A short press of the button: **less than 1.5 seconds** will cause the **incline position** to initiate.
To stop the movement, a **short** press of the button in the opposite direction is enough.

Should a sun-wind sensor be integrated into the system, in automatic mode (solar-on) the end positions will always be initiated.

15. Obstacle detection

When, after the teaching of the first complete, uninterrupted travel from one end position to the other end position is carried out, the torque needed is learnt.

In any following complete, uninterrupted travel from end position to end position, the torque needed is automatically reset. Slow changes in the installation due to ageing, soiling, cold or heat are thus automatically taken into consideration.

If a travel movement in UP direction is blocked by an obstacle, the motor switches off.

The running direction in which the obstacle was recognized is blocked.

The block is removed if the motor has been operated in the opposite direction for a certain time. An obstacle must thus first be released before the motor can be
operated again in the direction of the obstacle.

16. End position correction

If a lengthening/shortening of the hanging has resulted due to e.g. temperature changes, this will be automatically corrected by closing the awning.

If, due to temperature changes, an adjusted sleeve performance is set and the hanging runs against the stop unit, the end position is immediately corrected.

After the first trial, the motor automatically identifies the torque necessary to close the awning and closes it with the lowest possible power, so that the fabric is
optimally protected.

17. What to do if…

Problem	Solution
No short “click-click“ on switching on the motor.	• Motor not plugged in. • Please check the plug connection. • Check connecting cable for possible damage. • Check the mains voltage and allow the cause of the voltage breakdown to be tested by a specialist electrician.
Hand-held transmitter does not work.	• Check the battery. • The wind sensor has triggered. Try it again after the expiry of the wind cut-off time. • Inadvertent deletion of the radio code. • Start learning radio code again (see chapter 9).
After running several times, the motor breaks down and no longer responds.	• The motor became too hot and has switched off. Try it again after a cooling time of about 15 min.
The motor no longer runs automatically.	• The sun automatic control mechanism was switched off. • The wind sensor has triggered. Try it again after the expiry of the wind cut-off time. • Inadvertent deletion of the radio code. Start learning radio code again (see chapter 9).
The motor does not react to the near range	• Move as close as possible to the motor head with the hand-held transmitter. • Exchange the batteries in the hand-held transmitter. • The close range is deactivated. To activate the close range disconnect the motor from the electrical supply for about 3 seconds. • Learning mode time (30 minutes) has expired.

18. Maintenance

The drive is maintenance-free.

19. Declaration of conformity

GEIGER
Antriebstechnik

EC Declaration of Conformity

Gerhard Geiger GmbH & Co. KG
Antriebstechnik
Schleifmühle 6

D-74321 Bietigheim-Bissingen

Product: Venetian blind motor, motor for rolling shutter, motor for awnings

Type designation: **GJ56..**

GR45..

GU45..

The designated product is in conformity with the European Directive:

2006/42/EC

"Directive 2006/42/EC of the European Parliament and of the Council of 17 May 2006 for the approximation of laws, regulations and administrative provisions of the Member States concerning machinery".

2004/108/EC

"Directive 2004/108/EC of the European Parliament and of the Council of 15 December 2004 on the approximation of the laws of the Member States relating to electromagnetic compatibility and repealing Directive 89/336/EEC"

The conformity of the designated product with the provisions of the directives is proved in particular by full compliance with the following standards:

DIN EN 60335-1	DIN EN 55014-1	EN301 489-03
DIN EN 60335-2-97	DIN EN 55014-2	EN300 220-3
DIN EN 62233	DIN EN 61000-3-2	
	DIN EN 61000-3-3	

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The accredited VDE Testing and Certification Institute (EU Identification No. 0366) Merianstr. 28, D-63069 Offenbach, tests and certifies for the company Gerhard Geiger GmbH & Co. KG.

Authorised representative for technical data: Gerhard Geiger GmbH & Co. KG
Address: Schleifmühle 6, D-74321 Bietigheim-Bissingen

Bietigheim-Bissingen, 15.02.2013 Hans-Michael Dangel (General Manager)

20. Technical data

Technical data of tubular motor SOLIDline-KS (GU45..)					
	GU4510	**GU4520**	**GU4530**	**GU4540**	**GU4550**
Voltage			230 V~/50 Hz		
Current	0,47 A	0,63 A	0,8 A	1,0 A	1,0 A
Cos Phi (cosφ)			>0,95		
Inrush current (factor)			x 1,2		
Power	105 W	140 W	180 W	220 W	220 W
Torque	10 Nm	20 Nm	30 Nm	40 Nm	50 Nm
Speed	16 rpm	16 rpm	16 rpm	16 rpm	12 rpm
Protection class			IP 44		
Total length[1)]	516,5 mm	546,5 mm	566,5 mm	586,5 mm	586,5 mm
Operating mode	S2 4 min	S2 5 min	S2 4 min	S2 4 min	S2 4 min
Sound pressure level[2)]	39 dB(A)	41 dB(A)	41 dB(A)	43 dB(A)	-
Diameter			45 mm		
Weight	approx 1,90 kg	approx 2,20 kg	approx 2,40 kg	approx 2,70 kg	approx 2,70 kg
Ambient temperature / humidity	Operation: T = -10°C .. +60°C / H max. 90% Storage : T = -15°C .. +70°C / dry and non-condensing place				

[1)] **SOLIDline-ZN**: -1 mm / **SOLIDline-COM** + 3,5 mm / **SOLIDline-SOC**: + 3 mm

[2)] The average sound pressure level data are intended for guidance only. The values were determined by GEIGER at a distance of 1 m, with a hanging motor at idle speed and averaged over 10 seconds. There is no reference to any specific test standard.

Subject to technical modifications

21. Notes on waste disposal

Recycling of packaging materials

In the interest of environmental protection, please contact your local government's recycling or solid waste management department to learn more about the services it provides.

Waste disposal of electric and electronic equipment

Electrical and electronic equipment must be collected and disposed of separately in accordance with EU regulations.

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For technical questions, please call our service team at: +49 (0) 7142 938-333. They will be happy to assist you.

GEIGER Antriebstechnik

Gerhard Geiger GmbH & Co. KG
Schleifmühle 6
D-74321 Bietigheim-Bissingen
Telephone: +49 (0) 7142 938-0
Telefax: +49 (0) 7142 938-230
E-Mail: info@geiger.de
Internet: www.geiger.de